Electroporation

Introduction

Protocol for transformation with electrocompetent cells.

Materials

- Electrocompetent cells
- DNA
- Electroporation cuvettes

Procedure

1. Add 100 ng of plasmid into 40 uL competent cells in a 1.5 uL eppendorf tube. Mix gently by flicking the tube a couple of times.
2. Transfer mixture to electroporation cuvettes. Tap the cuvette e.g. on a table to make sure that all the mixture is on the bottom.
3. Carry out electroporation; set kV to 2.2, low range to 200 and the capacitance to 25. A minimum read of 5 milliseconds is required.
4. Add 450 uL of SOC/SOB medium immediately after the electroporation, pipet the mixture up and down.
5. Transfer mixture to 1.5 mL eppendorf tubes and outgrow for 1 hour at 37 C with shaking.
6. Plate appropriate amounts (20-200 uL) of the mixture on LB plates containing the correct antibiotic. (Remaining unplated transformation mixute can be stored on the bench and plated the next day if necessary.)